

## CLAIMS

What is claimed is:

- 1           1.     A vibration damper comprising:  
2           a damping element comprising a container tube, a fastening part, and a piston  
3     rod;  
4           a pneumatic spring comprising an outer tube for connecting to a mass whose  
5     vibrations are to be damped, a rollover tube fixed to said container tube and sealing off  
6     a gas space between said container tube and said rollover tube, and a spring bellows  
7     between said outer tube and said rollover tube, said spring bellows bounding a spring  
8     space filled with a pressurized gas and communicating with said gas space between  
9     said rollover tube and said container tube; and  
10          a support ring which is stamped and formed from sheet metal installed between  
11     the rollover tube and the container tube, said support ring supporting and centering the  
12     rollover tube on the container tube.
- 1           2.     A vibration damper as in claim 1 wherein said support ring comprises a  
2     collar by which it is mounted on the container tube.
- 1           3.     A vibration damper as in claim 1 wherein said container tube is formed  
2     with a stop which positions the support ring on the container tube.
- 1           4.     A vibration damper as in claim 3 wherein said stop comprises a beveled  
2     surface on said container tube.

1           5.     A vibration damper as in claim 1 wherein said support ring is positioned on  
2     said container tube by one of welding, pleating, adhesive bonding, brazing, and press-  
3     fitting.

1           6.     A vibration damper as in claim 1 wherein said support ring comprises an  
2     inner circumferential area which is mounted on said container tube, an outer  
3     circumferential area which is mounted against said rollover tube, and a middle area  
4     which connects said inner area and said outer area to form an S-shaped profile.

1           7.     A vibration damper as in claim 6 wherein said outer circumferential area is  
2     provided with spring tongues having openings between said spring tongues.

1           8.     A vibration damper as in claim 6 wherein said middle area is provided with  
2     openings which permit passage of gas.

1           9.     A vibration damper as in claim 1 wherein said support ring is provided with  
2     openings which permit passage of gas.